ORIGINAL RESEARCH PAPER | Medical Science | Volume : 6 | Issue : 11 | November 2016 | ISSN - 2249-555X | IF : 3.919 | IC Value : 74.50

Glomus Tumor on Dorsum of Foot: A Rare Occurrence

KEYWORDS: glomus tumor; extradigital; dorsum of foot

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ABSTRACT *Glomus tumor, also known as Glomangioma, originates in the neuromyoarterial glomus, a normal arteriovenous shunt abundantly supplied with nerve fibres and fulfilling a temperature-regulating function. The classic location of the glomus tumor is the subungual region, but it can occur elsewhere in the skin, soft tissues (particularly in the flexor surface of the arms and about the knee), nerves, stomach, nasal cavity, and trachea. It has also been reported in the sacrococcygeal region, arising from the coccygeal body (glomus coccygeum). We hereby report a case of 45 year old female who underwent a surgical excision of a painful nodule on the dorsum of right foot. On histopathological examination, findings revealed the lesion to be Glomus tumor.*

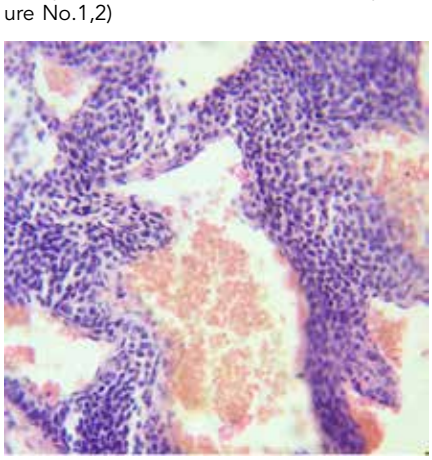
INTRODUCTION

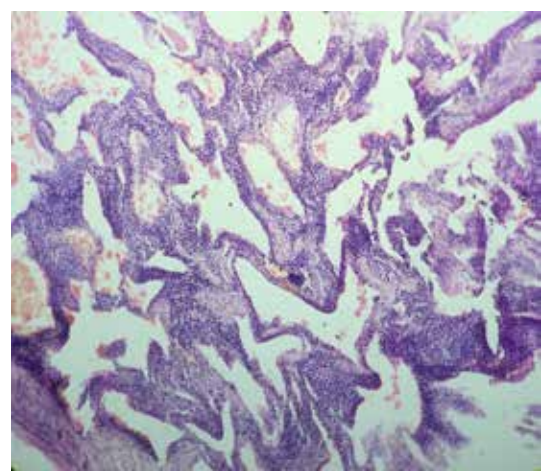
Glomus tumour is an uncommon hamartoma arising from glomus bodies which are arteriovenous shunts present mainly in digits and are composed of endothelium lined vascular spaces (Sucquet Hoyer canal) surrounded by glomus cells.[1] It accounts for approximately 1% of all hand tumours.[2] Characteristic triad of temperature sensitivity, severe pain and localised tenderness can be noted in 63-100% of patients.[3] Here we describe a case of glomus tumour at unusual location on the dorsal aspect of the right foot.

CASE REPORT

A 45 year-old female patient presented to surgery outpatient department with complaints of a painful mass for 20 years on the dorsum of right foot. A small purple colored nodule of size 1×1 cms was noted on the dorsum of foot near the ankle which was very tender on palpation.

The painful nodule was excised completely under short general anaesthesia.The tissue was sent for histopathological examination. Grossly the specimen was slightly purple in colour of size 0.5×0.5 cms. Histopathological findings revealed the lesions to be Glomus tumor consisting of blood vessels lined by normal endothelial cells and surrounded by a solid proliferation of round or cuboidal cells with perfectly round nuclei and acidophilic cytoplasm (Figure No.1,2)





Discussion:

Glomus tumour is common between 30 and 50 years of age and occurs spontaneously. It is usually solitary but a multiple glomus tumour syndrome has been described. There is no gender predilection but subungual lesions are more common in women and extra digital glomus tumours are more common in males.[4]

Most glomus tumours occur on the toes and fingertips, particularly beneath the nails. It usually presents as a small, blue-red papule or nodule in the deep dermis or subcutis in acral location (usually subungual or finger pulp). [5]

Pain is the most common presenting symptom of glomus tumours and may be spontaneous, often provoked by direct pressure or a change in skin temperature, by gush of wind, and in winter.[2] Tumours beneath the nail are particularly painful, and patients present for treatment while the lesions are still very small and are invisible. The classical triad of severe pain, cold sensitivity and localised tenderness is seen in 63-100% of patients.[3]

The diagnosis is based on clinical symptoms and signs and confirmed by histopathology which shows nests of glomus cells surrounding capillary sized vessels. Glomus cells are small, uniform, rounded cells with a centrally placed, round nucleus and amphophilic to lightly eosinophilic cytoplasm.

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Radiographs are of limited usefulness in the diagnosis, while high-resolution MRI is the most sensitive and the primary diagnostic imaging modality of choice. High-resolution USG can detect tumours as small as 3 mm, but small flat subungual lesions can be overlooked.

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